

## CLAIMS

What is claimed is:

- 1           1.     A composite heat sink device for surface mounting to a circuit board,  
2     said device comprising:  
3                 a heat sink body consisting essentially of aluminum, said body comprising at  
4     least one mounting land with a substantially planar surface, and  
5                 a thermally conductive solderable element mechanically fixed to each said  
6     mounting land, each said element having a first planar surface which is contiguous with at least  
7     one said planar surface of said heat sink body and an opposed second planar surface for  
8     soldering to said circuit board.
2.     A composite heat sink device as in claim 1 wherein said heat sink body  
          has two of said lands, said substantially planar surfaces being coplanar.
3.     A composite heat sink device as in claim 2 wherein said body comprises  
          a heat dissipating fin upstanding from each of said lands, and a bight upstanding from said  
          lands between said fins.
4.     A composite heat sink device as in claim 3 wherein said bight has a  
          planar section which is parallel to said lands and intended to be arranged over an electronic  
          device on said circuit board.
5.     A composite heat sink device as in claim 1 wherein said heat sink body is  
          formed from a sheet of aluminum.
6.     A composite heat sink device as in claim 5 wherein said heat sink body is  
          formed from a sheet of anodized aluminum.

1                    7.     A composite heat sink device as in claim 6 wherein said anodized  
2 aluminum is blackened.

1                    8.     A composite heat sink device as in claim 1 wherein said heat sink body is  
2 extruded.

1                    9.     A composite heat sink device as in claim 1 wherein said element is  
2 mechanically fixed to said land by providing at least one projection on said land, providing at  
3 least one socket in each said element, and inserting each said projection into a respective at  
4 least one socket in an interference fit.

1                    10.    A composite heat sink device as in claim 9 wherein the element is  
2 swaged onto the land.